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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,563

11/20/2003

Dae-Seob Kweon

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STANZIONE & KIM, LLP  
919 18TH STREET, N.W.  
SUITE 440  
WASHINGTON, DC 20006

EXAMINER

LEE, SUSAN SHUK YIN

ART UNIT

PAPER NUMBER

2852

MAIL DATE

DELIVERY MODE

09/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/716,563

Applicant(s)

KWEON, DAE-SEOB

Examiner

Susan S. Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-14, 16-23 and 26-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4, 6-14, 16, 21-23 and 26-28 is/are rejected.  
7) ☒ Claim(s) 17-20, 29 and 30 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

The previous indicated allowability of claims 1-4, 6-14, 16-22, and 26-28 is hereby withdrawn in view of the amendment filed 7/5/07 made to these claims by Applicant.

### ***Claim Objections***

Claims 7-14, 16-20, 22, and 30 are objected to because of the following informalities:

As to claim 7, lines 12-13, "a second distance" is unclear since there is no previously recited first distance.

As to claim 8, line 1, "the developing unit of claim 8" is unclear. A claim cannot depend on itself.

As to claim 16, line 2, "the first distance" lacks antecedent basis.

As to claim 30, line 2, "the toner receptacle" lacks antecedent basis.

As to claim 30, line 3, "a predetermined second nip" is unclear because there is no previously recited predetermined first nip.

As to claim 30, line 4, "the toner supplying roller" lacks antecedent basis.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 6-14, 16, 21-23, and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamai (Japan, 670).

Tamai discloses in Fig. 3 a photoconductive medium 24 and a developing case 23. The developing case 23 have a toner receptacle storing toner 26; a developing unit 25 used to transfer toner 26; a toner supplying unit 28 in the form of a fur brush; a flicker or a cleaning unit 29 disposed at a stationary position a distance from toner supplying unit 28 opposite to a nip with respect to a rotating axis of the toner supplying unit 28 to remove the toner supplying unit 28 excess toner. A toner controlling blade 30 regulates the toner on the surface of the developing unit 25. It would be inherent that the developing case 23 has a frame to support the developing unit to be rotatable. The developing unit 25 contacts the photoconductive medium 24.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamai (Japan, 670) in view of Yamamoto (6,381,434).

Tamai, as discussed above, differs from the instant invention by not disclosing the material of the fur brush and the size of the fur.

Yamamoto discloses a photosensitive member 10 and a developing apparatus 3. The developing apparatus 3 has a receptacle holding developer and toner; developing

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roller 1; and a toner supply member 4 that is a fur brush. The toner supply brush 4 is made of a fur brush flocking a core of SUS or the like with conductive fibers made of polyamide (nylon). The size of fibers is of 1- 10 denier/filament and the length is from 1- 10 mm. Note column 4, line 46- column 5, line 8; and Fig. 1.

It was obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tamai with that of Yamamoto so that deterioration of toner is prevented as discussed by Yamamoto (note column 4, lines 1-3).

#### ***Allowable Subject Matter***

Claims 17-20, 29, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to claim 23 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Susan S. Lee  
Primary Examiner  
Art Unit 2852

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